OFFICIAL SYLLABUS WILL BE PROVIDED IN THE COURSE

EAST TENNESSEE STATE UNIVERSITY

College of Arts and Sciences

Department of Physics and Astronomy

PHYS-2010: General Physics I
Syllabus - Fall 2019

Course ID:	PHYS-2010-001
Lecture Times:	M W F 9:20 a.m. – 10:15 a.m.
Location:	Rm. 370 Brown Hall
Lecturer:	Dr. Yuriy Razskazovskiy or Dr. Raz
Office Hours:	W 10:30 a.m. – 12:15 p.m., Rm 369
Textbook:	College Physics, 11th Enhanced edition by Serway and Vuille
Course Key	etsu 2725 8849

Overview

General Physics I is the first semester of a one-year course in physics covering mechanics, thermodynamics and the properties of solids, liquids and gases. **General Physics I is a quantitative in nature course that focuses primarily on problem solving. Therefore, the measure of a student's performance is the ability to solve numerical problems and not just to quote laws and memorize formulae**.

The course is specifically designed to allow students with relatively weak training in mathematics and science problem solving to quickly gain the needed quantitative reasoning skills. A background in high school algebra and trigonometry are assumed, but the course begins with a mathematical review for those whose math skills are inadequate. **All students are expected to have a good scientific calculator - especially for exams. This item is not provided by the Department**. Please feel free to consult me outside the class if you are having unusual difficulty with the course in general. Also contact me during the regular office hours if you have any other problemor question related to this course.

Course Outline

Week	Topics	Chapter
August 26	Introduction, Techniques & Units	1
September 2	**No class on (9/02)** Motion 1 dimension	2
September 9	Motion in 2 dimensions	3
September 16	Motion in 2 dimensions (cont) Exam 1 **(9/18)**	3
September 23	Newton's laws	4
September 30	Work and Energy	5
October 7	Momentum and Collisions	6

October 14	**No class on 10/14 (Fall break).**	
	Exam 2 (10/16) Rotational Motion and the Law of Gravity	7
October 21	Rotational Equilibrium and Rotational Dynamics	8
October 28	Rotational Dynamics (cont.)	
November 4	**Exam 3 (11/04).**	
	Solids and Fluids	9
November 11	**No class on 11/11**.	
	Thermal Physics	10
November 18	Energy in thermal processes	11
November 25	**Exam 4 (11/25)**	
	Thanksgiving (11/27-11/29)	
December 2	Thermodynamics**,** Course review and summary	12

December 9 **Comprehensive Final (8.:00 a.m. – 10:00 a.m.)**

Exams & Homework

Regular exams. There will be 4 intermediate exams throughout the semester and a comprehensive final on the dates listed in the syllabus. Each of the exams will cover the material prior to the exam and be taken during the regular class time except for the final. Each of the intermediate examples typically consists of 5 regular credit numerical problems (20 points each) plus one extra credit problem (20 points). The Final looks similar except the numbers of regular credit and extra credit problems are 10 and 2, respectively. The total number of regular credit points for all the tests equals, therefore, 600, plus the opportunity to make 120 extra points if you solve all extra credit problems.

Scoring. A problem is considered solved in full if the correct numerical answer is produced, and the way it was obtained is clearly shown. In that case full credit for the problem will be awarded. Otherwise **partial credit** will be given for regular credit problems only on the following basis: 75% of full credit for a technical error, 50% for a minor fundamental error, 25% for a major fundamental error. Technical error is typically a simple algebraic or arithmetic flaw while the rest of the approach is correct. If the approach itself needs a minor adjustment, then the error is classified as a minor fundamental one. More significant correction turns the error into a major fundamental one. Zero points is given if the approach you've taken can't lead you to the right answer. The same happens (0 points) if a correct numerical answer is reported without proper justification.

"Open notebook" policy. During all tests you may use **your own notes.** These can be taken in class or prepared outside the class. **Textbooks, photocopies of any kind or any printouts from D2L are strictly prohibited**. Violations of this rule will be treated as academic dishonesty with all appropriate consequences.

Missed exams. Make-up tests will **NOT** be given on a regular basis. **It is strongly recommended not to miss a regularly scheduled exam**. In the case of **extreme emergency** I expect to be notified as soon as possible (preferably before the exam). All such situations will be handled on an individual basis.

Homework. Material in this course is covered at a high pace and each new chapter assumes that you understand the material in previous chapters. It is very important for you to keep up with course work on a daily basis. There will be online problem sets assigned throughout the semester using WebAssign instructional tools (*https://www.**webassign**.net)*. To login

for the first time, use the course key **provided in the first paragraph of the syllabus.** Your homework will be graded automatically by the system and considered an extra credit when calculating the course grade. You can add up to 15% to you final percentage if you complete all 12 homework assignments suggested during the semester.

Grading

At first, your lowest intermediate test score will be replaced with a half of your Final exam score. The same applies to a missed exam, which will be considered your "lowest" score in that case. Then the Course Average and Your Final Exam Percentage are calculated in the following way:

Course Average = (Exam 1 + Exam 2 + Exam 3 + Exam 4 + Final)/6 + Extra credit (15% max)
Final Exam Percentage = (Final Exam Score)/2

Then the two numbers are compared to each other. If your Final Exam Percentage is below your Course Average, the Course Average is used to determine your course grade. However, if your Final Exam Percentage is higher then the Course Average, and the latter is above 50%, then your Final Exam Percentage is used for the same purpose.

Grading Scale

A =	92% or better	A- =	90-91.99%		
B+ =	85-89.99%	B =	80-84.99%	B- =	75-79.99%
C+ =	70-74.99%	C =	65-69.99%	C- =	60-64.99%
D+ =	55-59.99%	D =	50-54.99%		
F =	Less than 50%				

Special Case: If your Course Average is less than 50% but you score more than 50% on the Final, and you took at least three of the intermediate exams, then you pass the course with a D grade.

Other Issues

Mental Health: Students often have questions about mental health resources, whether for themselves or a friend or family member. There are many resources available on the ETSU Campus, including:

ETSU Counseling Center (423) 439-4841; ETSU Behavioral Health & Wellness Clinic (423) 439-7777
ETSU Community Counseling Clinic: (423) 439-4187.
If you or a friend are in immediate crisis, call 911.
Available 24 hours per day is also the National Suicide Prevention Lifeline: 1-800-273-TALK (8255).